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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/669,324

09/25/2003

Kenji Wada

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EXAMINER

SCHNURR, JOHN R

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/669,324	<b>Applicant(s)</b> WADA ET AL.	
	<b>Examiner</b> John R. Schnurr	<b>Art Unit</b> 2623	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/25/2003</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This Office Action is in response to Application No. 10/669,324 filed 09/25/2003.

Claims 1-20 are pending and have been examined.

2. The information disclosure statement (IDS) submitted on 09/25/2003 was considered by the examiner.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims **1-3, 6, 11, 13-15 and 17** are rejected under 35 U.S.C. 102(e) as being anticipated by **Ohmatsu (US Patent Application Publication 2003/0007572)**.

Consider **claim 1**, Ohmatsu clearly teaches a receiving apparatus capable of receiving digital broadcast signals of plural channel frequency allocation patterns, **([0026] and [0027])** the apparatus comprising:

an input unit to which the digital broadcast signals are inputted; **(Fig. 1 Tuner 2, [0030])**

a decision unit which starts channel selection at a signal of a channel of a preset frequency **(Fig. 3: In step S31 channel selection starts at channel 1, [0044].)** and determines the channel frequency allocation pattern of the digital broadcast signal inputted to the input unit; **(Fig. 3: The channel tuning apparatus checks for the presence of a signal, S32, if no signal is found the CATV mode (STD, HRC or IRC) is**

**changed and the signal is again checked to determine the mode of the signal, [0046].)**

a channel list preparation unit which scans plural channels on the basis of the frequency corresponding to the channel frequency allocation pattern determined by the decision unit and stores information on the plural channels. **(Fig. 3: The channels are scanned based on the established CATV mode and information about the channels is stored, [0049]-[0050].)**

Consider **claim 2**, Ohmatsu clearly teaches the decision unit has a demodulator unit **(Fig. 1 Demodulation means 3)** and judges the channel frequency allocation pattern in accordance with whether or not the inputted signal can be demodulated at the frequency of the channel frequency allocation pattern. **([0031])**

Consider **claim 3**, Ohmatsu clearly teaches the channel frequency allocation pattern is one of the group consisting of STD, IRC and HRC used for cable digital broadcast in the United States. **([0028])**

Consider **claim 6**, Ohmatsu clearly teaches the decision unit starts channel selection at a signal of a channel of a preset or higher frequency, **(Fig. 3: In step S31 channel selection starts at channel 1, [0044].)** and when demodulation is not possible in the frequency of any of the channel frequency allocation patterns, demodulation is performed in a channel of a higher frequency. **(Fig. 3: Step S35 determines no signal is available in any mode and step S39 increments to a higher frequency, [0047].)**

Consider **claim 11**, Ohmatsu clearly teaches when one of the channel frequency allocation patterns is decided in a certain channel by the decision unit, **(Fig. 3: The channel tuning apparatus checks for the presence of a signal, S32, if no signal is found the CATV mode (STD, HRC or IRC) is changed and the signal is again checked to determine the mode of the signal, [0046].)** channel information of that channel is stored into the channel list preparation unit. **(Fig. 3: Step S37 stores channel information, [0049].)**

Consider **claim 13**, Ohmatsu clearly teaches a receiving method for receiving digital broadcast signals and preparing a channel list, **([0026] and [0027])** the method comprising:

a channel selection step of selecting a channel of a signal having a higher frequency than a predetermined frequency; **(Fig. 3: In step S31 channel selection starts at channel 1, [0044], and is incremented in step S39.)**

a decision step of deciding of which channel frequency allocation pattern the digitally broadcast signal of the frequency selected at the channel selection step is; (**Fig. 3: The channel tuning apparatus checks for the presence of a signal, S32, if no signal is found the CATV mode (STD, HRC or IRC) is changed and the signal is again checked to determine the mode of the signal, [0046].**)

a channel scanning step of scanning plural channels using the channel frequency allocation pattern determined at the decision step; (**Fig. 3: The channels are scanned based on the established CATV mode and information about the channels is stored, [0049]-[0050].**)

a channel information storage step of storing information on each channel obtained in the channel scanning step. (**Fig. 3: Step S37 stores channel information, [0049].**)

Consider **claim 14**, see claim 2.

Consider **claim 15**, see claim 3.

Consider **claim 17**, see claim 6.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims **4, 5 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ohmatsu (US Patent Application Publication 2003/0007572)** in view of **Shintani et al. (US Patent 6,137,546)**, herein Shintani.

Consider **claims 4 and 5**, Ohmatsu clearly teaches the apparatus of claim 1, wherein the signals are digital signals.

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However, Ohmatsu does not explicitly teach the preset frequency is a frequency of 550 MHz or higher and 750 MHz or lower.

In an analogous art Shintani, which discloses a system for auto-programming a television receiver, clearly teaches auto-programming digital signals starting from the lowest digital channel. **(Fig. 5 Step 84, column 4 line 57 to column 5 line 6. Digital signals are located between 550 MHz and 750 MHz, Ahmed et al. US Patent Application Publication 2005/0114903 [0045].)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Ohmatsu by setting the preset frequency in the digital signal range, located between 550 MHz and 750 MHz, as taught by Shintani, for the benefit of allowing digital signals to be auto-programmed separately from analog signals thus allowing for additional digital signals to be at a later time (column 2 lines 14-25 Shintani).

Consider **claim 16**, see claim 4.

7. Claims **7 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ohmatsu (US Patent Application Publication 2003/0007572)** in view of **Lee (US Patent 7,136,113)**.

Consider **claim 7**, Ohmatsu clearly teaches the apparatus of claim 1, wherein the output signal from demodulator is monitored to detect the presence of a signal. **(Fig. 1: The output from the demodulation means 3 are monitored for the presence of a signal, [0031], the demodulation means include an amplifier, [0013].)**

However, Ohmatsu does not explicitly teach the demodulation means amplifier contains an AGC.

In an analogous art Lee, which discloses a system for receiving digital television signals, clearly teaches utilizing an amplifier and AGC when receiving digital television signals, wherein the signal power is measured via the AGC. **(column 5 line 46 to column 6 line 7)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Ohmatsu by including an AGC with the amplifier, as taught by Lee, for the benefit of ensuring the output from the demodulation circuit remains constant during signal variations (column 2 lines 27-45 Lee).

Consider **claim 8**, Ohmatsu combined with Lee, as in claim 7, clearly teaches when it is judged using AGC voltage in the amplifier unit that the inputted signal is receivable, the decision unit starts an operation to decide the channel frequency allocation pattern, **([0049])** and when it is judged that the inputted signal is not receivable, the decision unit starts testing another channel for selection. **(Fig. 3 Step S39 [0050])**

8. Claims **9, 12, 18 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ohmatsu (US Patent Application Publication 2003/0007572)** in view of **Matsuyama et al. (US Patent Application Publication 2003/0202453)**, herein Matsuyama.

Consider **claim 9**, Ohmatsu clearly teaches the apparatus of claim 1.

However, Ohmatsu does not explicitly teach an extractor unit for extracting program information included in a digital broadcast signal, wherein the channel list preparation unit stores the program information extracted by the extractor unit as information on the channel.

In an analogous art Matsuyama, which discloses a system for receiving digital television signals, clearly teaches an extractor unit for extracting program information included in a digital broadcast signal, wherein the channel list preparation unit stores the program information extracted by the extractor unit as information on the channel. **([0033]-[0034])**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Ohmatsu by extracting information from the television signal and storing the information, as taught by Matsuyama, for the benefit of providing the user with information about the channel.

Consider **claim 12**, Ohmatsu clearly teaches the apparatus of claim 1, including a display unit which displays a received digital broadcast signal. **(The invention relates to a channel tuning apparatus which receives digital television signals, [0001])**

However, Ohmatsu does not explicitly teach wherein the display unit displays the channel information prepared by the channel list preparation unit.

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In an analogous art Matsuyama, which discloses a system for receiving digital television signals, clearly teaches wherein the display unit displays the channel information prepared by the channel list preparation unit. **[(0027)]**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Ohmatsu by displaying the extracted channel information, as taught by Matsuyama, for the benefit of providing the user with information about the channel.

Consider **claim 18**, see claim 9.

Consider **claim 20**, see claim 12.

9. Claims **10 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ohmatsu (US Patent Application Publication 2003/0007572)** in view of **Matsuyama et al. (US Patent Application Publication 2003/0202453)**, as applied to claims 9 and 18 above, in view of **Kessler et al. (US Patent 6,621,528)**, herein Kessler.

Consider **claim 10**, Ohmatsu combined with Matsuyama, as in claim 9, clearly teaches extracting program information from a digital signal.

However, Ohmatsu combined with Matsuyama, as in claim 9, does not explicitly teach the program information includes one of the group consisting of virtual channel number, modulation mode, channel TS-ID, and program number.

In an analogous art Kessler, which discloses a system for receiving digital television signals, clearly teaches the program information includes one of the group consisting of virtual channel number, modulation mode, channel TS-ID, and program number. **(column 1 line 63 to column 2 line 5)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Ohmatsu combined with Matsuyama, as in claim 9, by including channel TS-ID in the program information, as taught by Kessler, for the benefit of determining a physical channel associated with a major channel (column 1 lines 53-62).

Consider **claim 19**, see claim 10.



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**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John R. Schnurr whose telephone number is (571) 270-1458. The examiner can normally be reached on Monday - Friday, 7:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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